

Overview of deaths in metal/nonmetal mining

From October 2013 to April 2014

Presented at MSHA headquarters
Arlington, VA
May 5, 2014

18 Metal and Nonmetal Fatal Accidents (10/13 – 4/14)

- October - 1
- November - 4
- December - 3
- January - 0
- February - 4
- March - 1
- April - 5

18 Metal and Nonmetal Fatal Accidents (10/13– 4/14)

- 6 Underground – 12 Surface
- 4 Contractors – 14 Mine Employees
- 3 Explosives
- 3 Falling/Sliding Material
- 3 Machinery
- 3 Fall of Person
- 2 Powered Haulage
- 2 Fall of Rib
- 1 Electrical
- 1 Other (Drowning)

Fatal Accidents by Commodity

- 3 Crushed Stone
- 3 Sand & Gravel
- 2 Sand
- 2 Silver
- 2 Cement
- 2 Lime
- 1 Gold
- 1 Granite
- 1 Clay
- 1 Iron Ore

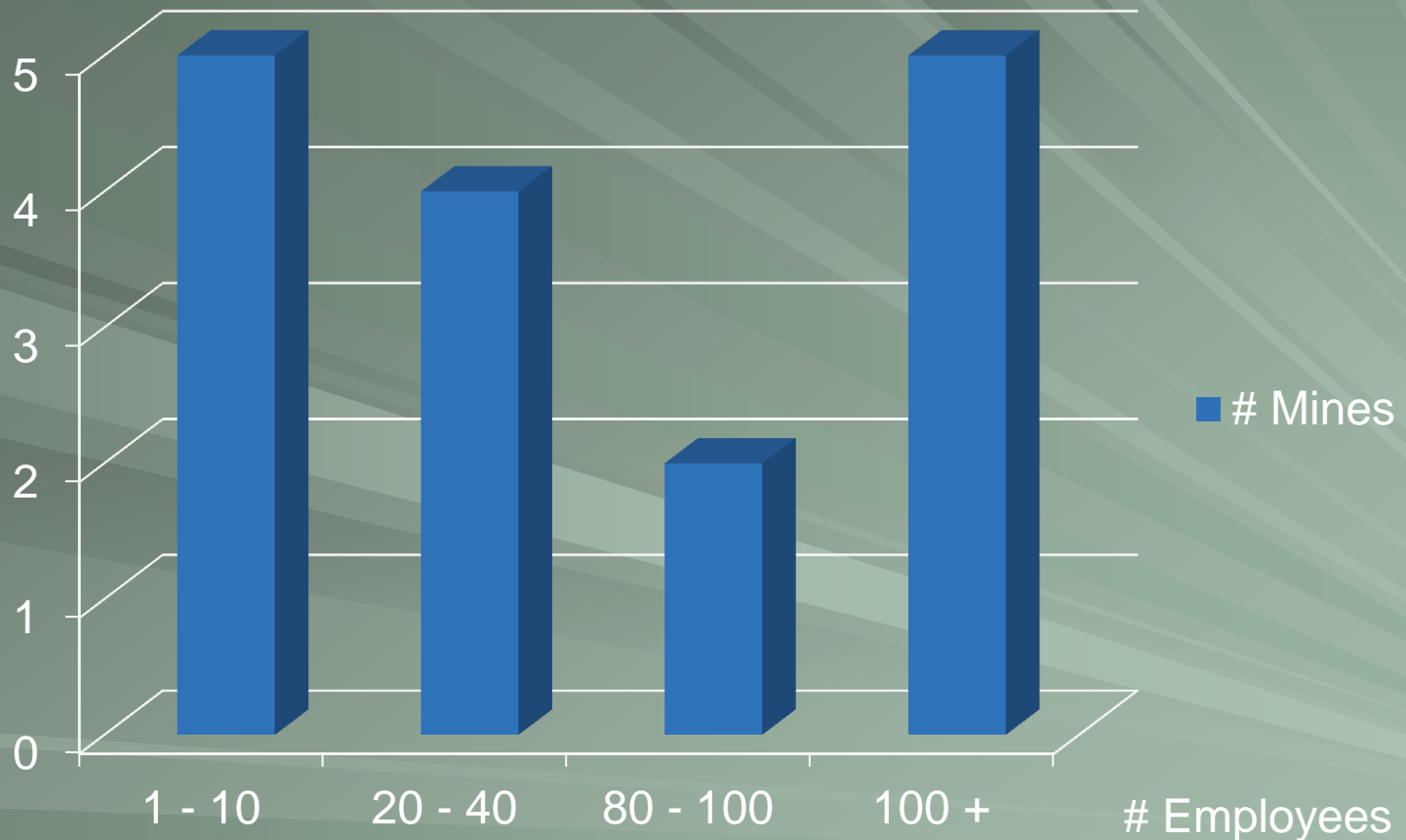
Fatal Accidents by State

- California – 1
- Colorado – 2
- Georgia – 2
- Iowa - 1
- Kansas – 2
- Kentucky – 3
- Louisiana – 1
- Missouri – 2
- New York – 1
- Utah – 1
- Virginia – 1
- Nevada - 1

Fatal Accidents by Occupation

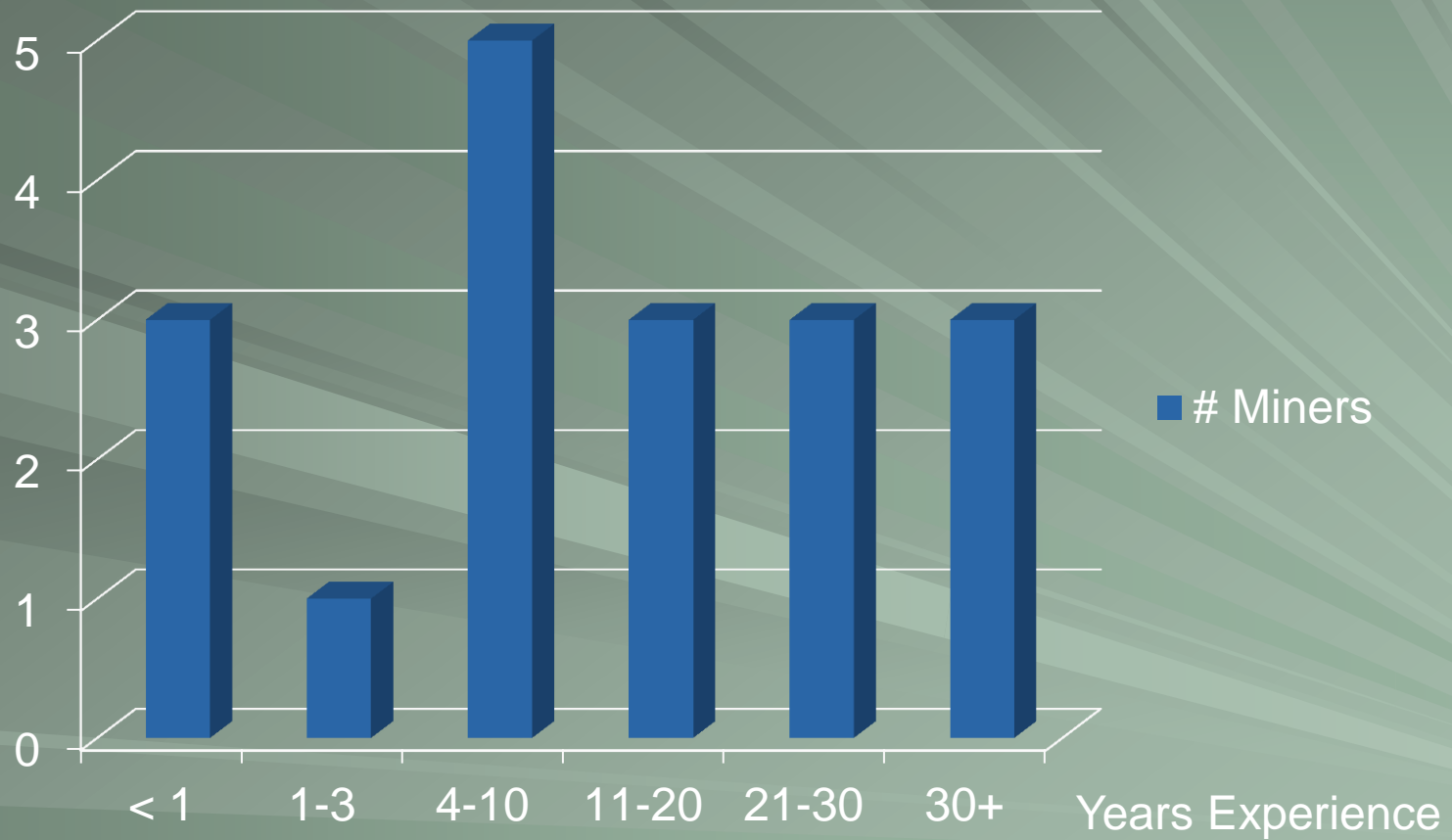
- Supervisor – 5
- Miner/Laborer - 6
- Scaler – 2
- Electrician – 1
- Truck Driver – 2
- Dozer Operator – 1
- Mechanic - 1

Fatal Accidents by Mine Size

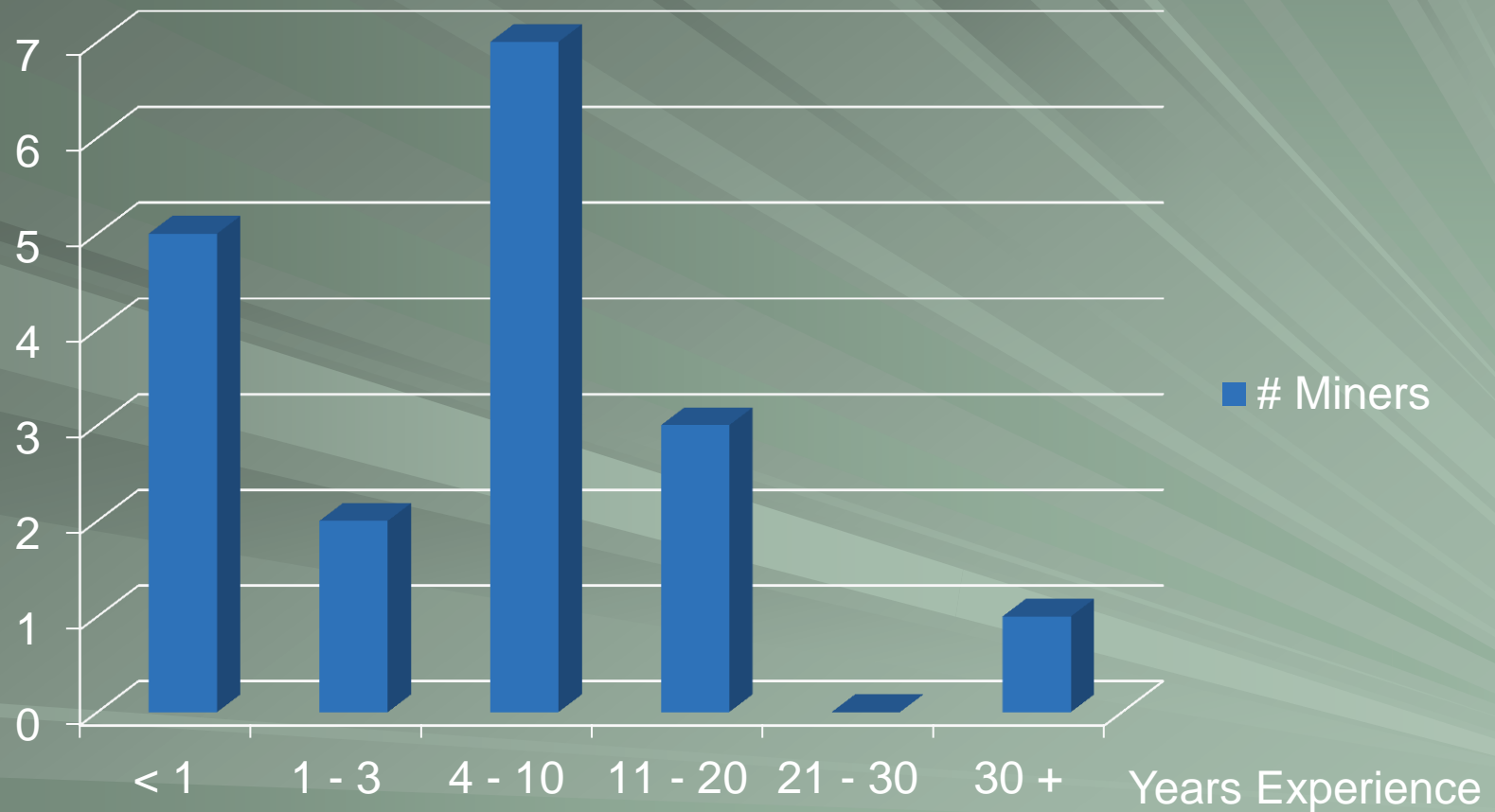


Note: Two 100+ employee mines had a double fatality

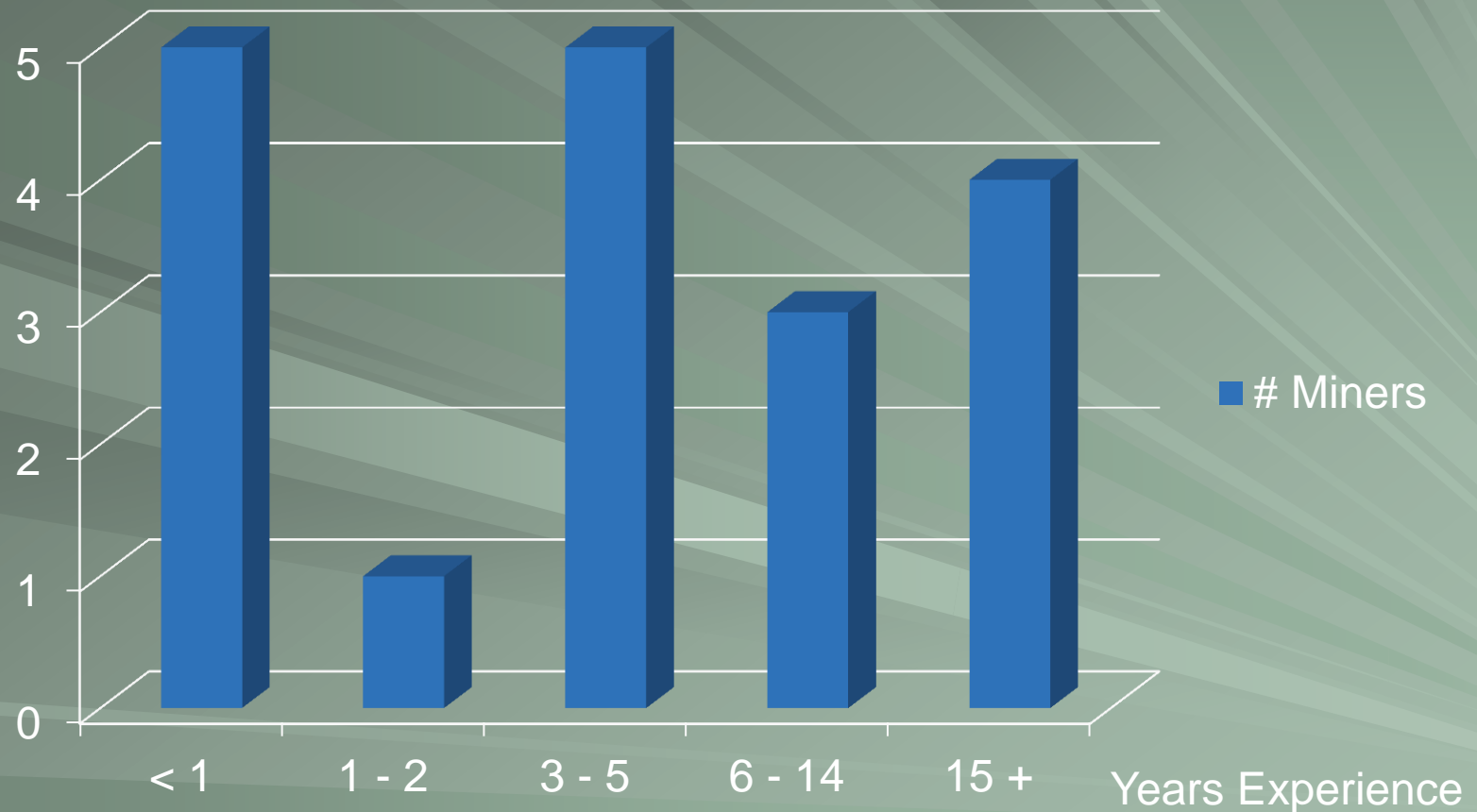
Fatal Accidents by Total Experience



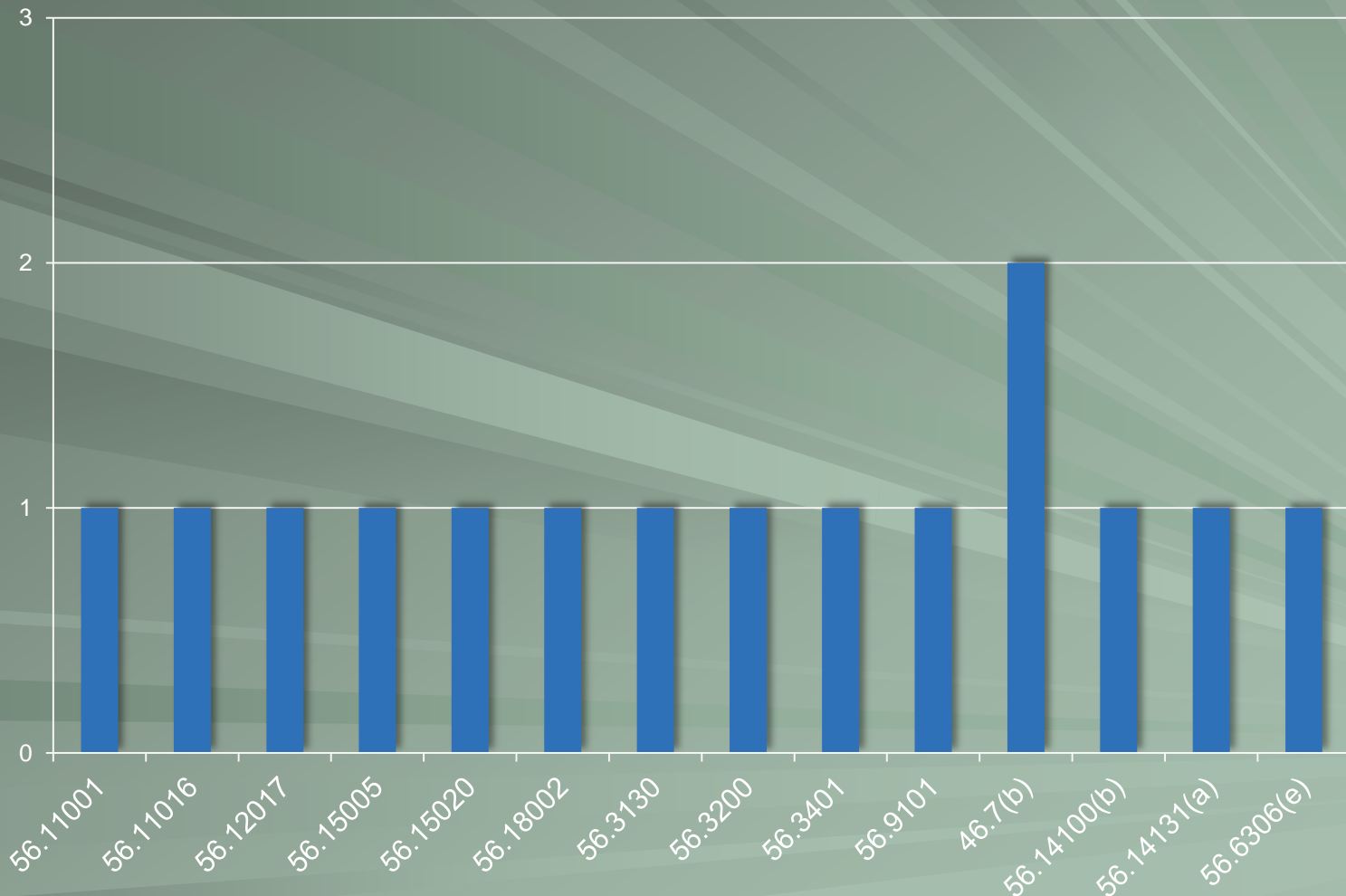
Fatal Accidents by Experience at Mine



Fatal Accidents by Experience at Activity



Contributory Standards Cited to date for 6/18 Fatal Accidents-Investigation not completed in 12 fatalities



Contributory Standards Cited to date for 6/18 Fatal Accidents-Investigation not completed in 12 fatalities

- 46.7b: New task training #21, #22
- 56.11001: Use of ladders #14
- 56.11016: Snow & ice on walkways/travelways #22
- 56.12017: Work on power circuits #18 **RTLB**
- 56.14100b: Safety defects, examination, correction, and records #14, **RTLB**
- 56.14131a: Seat belts #15 **RTLB**
- 56.15005: Safety belts & lines #22 **RTLB**

Contributory Standards Cited to date for 6/18 Fatal Accidents-Investigation not completed in 12 fatalities

- 56.15020: Life jackets & belts #22 **RTL**
- 56.18002: Examination of working places #22
- 56.3130: Wall, bank, & slope stability #21 **RTL**
- 56.3200: Correction of hazardous conditions #21 **RTL**
- 56.3401: Examination of ground conditions #21
- 56.6306e: Loading, blasting, & security #19
- 56.9101: Operating speeds & control of equipment #15 **RTL**

Fatalities -- Accident Injury Rates

	Fatal #	NFDL*	National**
CY 13	14	0.84	2.00
	15	0.00	1.60
	16 & 17	1.96	2.16
	18	0.90	1.60
	19	0.00	1.60
	21	0.00	1.54
	22	0.00	1.28
CY 14	1	2.61	1.51
	2	1.26	2.00
	3	0.00	1.28
	4	n/a	1.28
	5 & 6	0.67	1.62
	7	0.00	1.28
	8	2.18	1.54
	9	0.00	1.62
	10	1.94	2.16

* NFDL rates are for the mine where the accident occurred

** National rates are NFDL rates by mine type and commodity

Fatality #14 - October 17, 2013
(Victim Died October 19, 2013)
Slip/Fall of Person – California – Cement
National Cement Company Of California
Inc - Lebec Cement Plant

On October 17, 2013, a 52-year old electrician with 5 years of experience was injured at a cement operation. The victim was standing on a step ladder, pulling cable in a cable tray. The mounting bracket for the tray broke loose from the wall and the tray struck the step ladder. The victim fell 5 feet from the ladder, striking his head on the concrete floor. The victim was transported to a hospital where he died on October 19, 2013.



Fatality #15 - November 7, 2013
Powered Haulage – Georgia – Crushed,
Broken Granite
Vulcan Construction Materials, L.P. –
Lithia Springs Quarry

On November 7, 2013, a 46-year old equipment operator with 27 years of experience was killed at a granite mine. The victim was operating a haul truck when it veered off the left side of a haul road and traveled through a berm. The haul truck went over an embankment and overturned in a settling pond.



Fatality #16 & #17- November 17, 2013
Explosives/Breaking Agents – Colorado –
Silver
Star Mine Operations, LLC - Revenue Mine

On November 17, 2013, a 33-year old powderman trainee with 5 weeks of experience and a 59-year old shift supervisor with 36 years of experience were killed at a silver mine. The two miners were in an area of the mine where explosives had been detonated the day before. Other miners working in the area were able to evacuate. Mine rescue teams entered the mine, found the two victims, and brought them to the surface. During the recovery operation, rescue teams detected fatal levels of carbon monoxide. Twenty miners were taken to the hospital and three were kept overnight.



Investigation not completed.

Fatality #18 - November 18, 2013
(Victim Died November 22, 2013)
Electrical – Kentucky – Crushed, Broken
Limestone NEC
Pine Bluff Sand & Gravel Company -
Cumberland River Quarry

On November 18, 2013, a 33-year old contract electrician foreman with 14 years of experience was injured at a crushed stone mine. The victim was working in a 480-volt electrical enclosure, pulling cable for a new pump that was being installed, when he contacted energized conductors. He was transported to a hospital where he died on November 22, 2013.



Fatality #19 - December 4, 2013
Explosives/Breaking Agents – Kansas –
Crushed, Broken Limestone Bayer
Construction Company, Inc. - Kansas Falls
Quarry

On December 4, 2013, a 63-year old lead man with 16 years of experience was killed at a crushed stone mine. The victim initiated a blast and was struck by flyrock from the blast. He was standing 153 feet from the nearest blast hole and was struck by rock as large as 19 inches long by 14 inches wide by 7 inches thick.



Fatality #21 - December 13, 2013
Falling/Sliding Material – Georgia -
Construction Sand and Gravel
Brown Brothers Sand Company - Wittichen
Stephen Plants

On December 13, 2013, a 53-year old utility worker with 19 years of experience was killed at a sand mine. The victim was standing near the edge of a bank when it collapsed engulfing him.



Fatality #22 - December 10, 2013
Other (Drowning) – Kentucky -
Construction Sand and Gravel
Hunter Sand & Gravel, LLC. - Dredge IV

On December 10, 2013, a 27-year old deck hand with 4 years and 8 months of experience drowned at a dredge operation. He was working on a dredge that had a barge attached to it. The victim stepped on the barge and fell into the water.



Fatality #1 - February 1, 2014
Powered Haulage – Utah - Iron Ore
Gilbert Development Corporation (GDC)
Comstock / Mountain Lion

On February 1, 2014, a 56-year old contract belt operator with 4 months of experience was killed at an iron ore mine. The victim was cleaning a return idler inside the frame of a belt conveyor when he became entangled between the return idler and the belt.



Investigation not completed.

Fatality #2 - February 21, 2014
Fall of Person –Kentucky - Cement
CEMEX, Inc. - Kosmos Cement Co.

On February 21, 2014, a 34-year old contract laborer with 6 months of experience was killed at a cement operation when attempting to access an elevator in the finish mill. When the victim opened the elevator door on the fourth floor landing, he stepped into the elevator shaft and fell approximately 51 feet to the top of the elevator car located on the ground floor.



Investigation not completed.

Fatality #3 - February 28, 2014
Falling/Sliding Material – New York -
Construction Sand and Gravel
East Coast Mines Ltd - East Coast Mines
Ltd

On February 28, 2014, a 50-year old supervisor with 27 years of experience was killed at a sand and gravel mine. The victim was at a backfill site and approached an 80-foot high bank when it failed, engulfing him.



Investigation not completed.

Fatality #4 - March 27, 2014
Falling/Sliding Material -Virginia -
Construction Sand and Gravel
Baillio Sand Company Inc. - Lord Farm #5

On March 27, 2014, a 64-year-old foreman with 32 years of experience was seriously injured when he was struck by a section of plastic water pipe as it was being moved by an excavator. The victim was transported to a hospital where he died on March 30, 2014, as a result of his injuries.



Investigation not completed.

Fatality #5 & Fatality #6-April 11, 2014
Fall of Rib. -Missouri - Lime
Mississippi Lime Company - Mississippi
Lime Company-Ste. Genevieve

On April 11, 2014, a 53-year-old scaler with 8 years of experience and a 29-year old scaler with 8 years of experience were killed at an underground limestone mine. The miners were in a basket on a boom truck scaling a pillar about 40 feet above the mine floor. Large slabs of rock fell from the rib and struck an outrigger and the back of the truck, causing the boom to fall to the mine floor.



Investigation not completed.

Fatality #7 -April 17, 2014
Machinery -Kansas - Construction Sand and Gravel
Hafenstine Construction - Hafenstine Plant #1

On April 17, 2014, a 58-year-old truck driver with 3½ years of experience was killed at a sand and gravel mine. An excavator was loading material in a haul truck parked at the pit. When the victim exited the truck, he was struck by the excavator bucket and pinned against the truck.



Investigation not completed.

Fatality #8 - April 24, 2014
Machinery - Louisiana - Fire Clay
Big River Industries - Gravelite Division

On April 24, 2014, a 50-year-old contract dozer operator with 23 years of experience was killed at a fire clay mine. The victim had been pushing clay and was found lying on the ground approximately five feet behind the dozer.



Investigation not completed.

Fatality #9 - February 27, 2014
Fall of Person - Iowa - Crushed, Broken Limestone NEC
Martin Marietta Materials, Inc. - Ames Mine

On February 27, 2014, a 27-year-old contract mechanic with 2 years of experience was killed at an underground crushed stone mine. The victim was repairing a hydraulic pump on a scaler when he fell from the attached walkway approximately five feet to the ground. The victim was airlifted to a hospital where he died on February 28, 2014.



Investigation not completed.

Fatality #10 - April 28, 2014
Machinery - Nevada - Gold Ore
Klondex Midas Mine Inc. - Midas Mine

The miner was drilling with a jackleg drill when his clothing became entangled in the drill steel of the machine. Another miner found him unresponsive in the heading. The victim was transported to a local hospital where he was pronounced dead.

Investigation not completed.

Root Causes (From Completed Investigations)

■ Failure to

- Provide Training, including Task Training**
- Conduct Examinations**
- Deenergize Power and Lock Out/Tag Out**
- Conduct Pre-operational Checks**
- Maintain Mobile Equipment**
- Provide/Wear Personal Protective Equipment**

Best Practices

(18 deaths 10/13 – 4/14)

- Train all persons, including task training, to recognize all potential hazardous conditions and to understand safe job procedures for elimination of the hazards before beginning work
- Examine work areas to identify all possible hazards and eliminate them before performing work
- Do not perform work until the power is off, locked, and tagged, and machinery components are blocked against motion.
- Conduct pre-operational checks to identify any defects that may affect the safe operation of equipment
- Maintain mobile equipment
- Always wear a seat belt when operating mobile equipment
- Clear and remove all persons from the blast area unless suitable blasting shelters are provided to protect persons from flyrock
- Ensure all active working areas are ventilated prior to allowing miners to work in those areas
- Wear fall protection where there is a danger of falling